

REMARKS

Claims 1-36 are pending in the present application and all of these claims stand rejected. Claims 35 and 36 have been amended herein, and no claims have been cancelled. As the amendments to claims 35 and 36 are merely stylistic or legal in nature, the support for these claim amendments is the same as previously articulated in Applicant's last response filed January 23, 2008 (i.e., the entire application and paragraphs [0077] and [0078] in particular). This amendment is not believed to raise new issues for consideration, so entry of the amendment is respectfully requested. Applicant requests reconsideration of the present rejections in light of the following remarks.

Claim Rejections – 35 USC § 101

Claims 35 and 36 were rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. Applicant respectfully traverses this rejection for the following reasons.

Although the claims, as originally presented, are believed to be statutory, claims 35 and 36 have been amended herein to state in another way that the claimed instructions cause a machine or computer to operate in accordance with the instructions. As recognized in the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility published in the November 22, 2005 OG “a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory.” Accordingly, it is submitted that claim 35 is indeed statutory subject matter under 35 U.S.C. §101.

Furthermore, the Interim Guidelines direct that “[a] modern definition of machine would no doubt include electronic devices which perform functions.” Thus, the claimed processor in claim 36 falls within of the statutory category of “machine” and is configured to perform the recited functions. Accordingly, claim 36 is also statutory subject matter under 35 U.S.C. §101.

Claim Rejections – 35 USC § 103

Claims 1-5, 7-8, 12-14, 17-22, and 27-34 are rejected under 35 USC §103(a) as being unpatentable over Kowalewski (U.S. Patent No. 7,155,165) in view of Walker et al. (U.S. Patent

No. 7,215,713). The rejections are respectfully traversed and reconsideration is requested for the following reasons.

It is first noted that Walker et al., in order to qualify as prior art under 102(c)/103 with respect to the present application, must rely on the filing date of provisional application 60/525,616 filed November 26, 2003. As directed in MPEP §§706.02(f)(1).I(B) and 2136.02.II, the reference cited (i.e., Walker et al and, by 119(c) benefit claims, provisional 60/525,616) must contain the subject matter relied upon. A review of provisional application 60/525,616, however, does appear to evidence that the subject matter relied upon to reject the claims (i.e., col. 10, ll. 22-40 of Walker et al., as well as Figure 7, which this section references) was present in the provisional application. Accordingly, the subject matter of Walker et al. relied upon in the present rejection to reject the independent claims (i.e., col. 10, ll. 22-40), does not appear to constitute prior art for purposes of 102(c)/103 since it was not in provisional 60/525,616, and for this reason alone the rejection should be withdrawn.

Notwithstanding, Applicant further notes that one skilled in the art would not receive motivation from the teachings of Kowalewski, Walker et al., or knowledge in the art to combine the cited teachings of Walker et al. with Kowalewski. In particular, Kowalewski does not relate to hierarchical transmission; namely the transmission of a second data stream that is an enhancement stream of a first data stream. Rather, Kowalewski relates to transmitting pre-equalized signals over a plurality of radio channels rather than the prior art method of a multi-path occurrence of the transmission of a single channel, so as to mitigate fading incursions inherent in the prior art (See e.g., col. 1, ll. 17-33). Thus, it would be incorrect to characterize these multiple radio channels of Kowalewski as being a first data stream and a second data stream that is an enhancement of the first, since this would have no bearing or relevance on mitigating fading due to multi-path occurrences. Accordingly, no advantage is provided by the teachings of Walker et al. (i.e., hierarchical transmission) that effect a further benefit to the purpose of Kowalewski, which is to minimize fading incursions. Stated another way, adding hierarchical transmission to one or more of the channels in Kowalewski, while ostensibly increasing data rates, would not provide a beneficial effect on reducing fading, thus rendering the reasoning for combining irrational when considering the references as a whole. Thus, this rejection fails to meet the criteria proffered in the "Examination Guidelines for Determining Obviousness Under

35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*”, as published in the Federal Register of October 10, 2007, requiring “[R]ejections on obviousness ... [to possess] some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

Moreover, Applicant respectfully submits that Kowalewski does not teach all of the elements it is purported to teach. As an example, claim 1 features “deriving a second channel estimate based on [a] detected first data stream.” The rejection of this claim element asserts that teaching of this element is found in col. 7, lines 38-41 of Kowalewski. Neither this section nor the rest of Kowalewski actually teaches this claimed element. Instead, the cited section, in particular, unequivocally teaches that separate and distinct channel estimates of first and second channels (20 and 25) are derived by respective estimators 11 and 12. Thus, each channel estimate is based on a respective channel and to assert that this is equivalent to “deriving a second channel estimate based on a detected first data stream” is simply incorrect. Kowalewski derives first and second channel estimates from respective first and second channels (20 and 25).

As another example, the assertion that col. 6, lines 27-38 teaches the featured claim 1 element of “deriving a third channel estimate based on the first and second channel estimates” is also inaccurate. The cited section merely teaches addition of two signals (not channel estimates) by addition member 80 (See e.g., col. 6, line 27). Additionally, although Kowalewski may teach deriving a channel estimate from superimposed signals (col. 6, ll. 54-56), the reference does not teach anywhere a derivation of a channel estimate based on another channel estimate, let alone two other channel estimates as featured in the above-recited claim element.

Therefore, it is respectfully submitted that independent claim 1 patentably distinguishes over the cited references, either separate or in combination. The remaining independent claims recite features substantially similar to those described above with respect to independent claim 1. Thus, it is further submitted that all the independent claims, as well as the pending dependent claims, patentably distinguish over Kowalewski and Walker et al. for at least the reasons provided herein.

Claims 6 and 9-11 were rejected under 35 USC § 103(a), as being unpatentable over Kowalewski and Walker in view of Cioffi et al. (U.S. Patent No. 5,995,567). Applicant respectfully traverses this rejection. In particular, dependent claims 6 and 9-11 depend directly or indirectly from independent claim 1, which is patentable over Kowalewski and Walker et al.

for the reasons stated above. Thus, these claims are allowable for at least their dependencies, as well as on the merits.

Claims 15, 16, and 23-26 were rejected under 35 USC § 103(a), as being unpatentable over Kowalewski, Walker, Cioffi, and further in view of Isaksson et al. (U.S. Patent No. 6,181,714). Applicant respectfully traverses this rejection. In particular, these claims depend directly or indirectly from an independent claim, which are all patentable over Kowalewski and Walker et al. for the reasons stated above. Thus, these claims are allowable at least due to their dependencies, as well as on the merits.

Although claims 35 and 36 were not examined on their merits, these claims recite features substantially similar to those described above with reference to independent claim 1. Thus, claims 35 and 36 are submitted to be patentable for at least the same reasons provided above for independent claim 1.

CONCLUSION

Claims 1-36 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited.

The Commissioner is hereby authorized to charge payment of any fee(s) or underpayment of fee(s) or credit any overpayment(s) associated with this reply to Deposit Account No. 17-0026.

Respectfully submitted,

Dated: June 5, 2008

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